

REMARKS

The present application was filed on January 19, 2001, with claims 1-25, and claims priority from provisional application Serial No. 60/195,506 filed April 6, 2000. Claim 16 was subsequently canceled. Claims 1-15 and 17-25 are pending in the application.

Claim 17 is objected to due to an informality.

Claims 1-4, 6-8, 17, 19, 23 and 25 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,323,424 (hereinafter “Fazel”).

Claims 5 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Fazel in view of U.S. Patent No. 5,970,098 (hereinafter “Herzberg”) and U.S. Patent No. 5,841,378 (hereinafter “Klayman”).

Claims 9-13 and 20-22 stand rejected under §103(a) as being unpatentable over Fazel.

Claim 14 stands rejected under §103(a) as being unpatentable over Fazel in view of U.S. Patent No. 5,566,193 (hereinafter “Cloonan”).

Claim 24 stands rejected under §103(a) as being unpatentable over Fazel in view of U.S. Patent No. 5,416,801 (hereinafter “Chouly”).

Claim 18 is allowed.

Applicants respectfully request reconsideration of the present application in view of the amendments above and the remarks to follow.

With regard to the objection to claim 17, the claim has been amended in the manner suggested by the Examiner. Additional clarifying amendments have also been made. Accordingly, the objection should be withdrawn.

With regard to the §103(a) rejections, Applicants respectfully traverse.

In their previous response, Applicants amended independent claim 1 to specify that the stream of information bits comprises at least one frame of information bits separated into a plurality of different classes of bits, with each class of bits comprising a plurality of contiguous bits of the frame. Furthermore, these claims as amended specify that each of the portions of the stream of information bits comprises a corresponding one of the different classes of bits within the at least one

frame, and that the at least one code is selected so as to provide different amounts of error protection for at least a subset of the different classes of bits.

It appears from the arguments presented by the Examiner at page 12, section 9, of the final Office Action that Applicants have not made sufficiently clear their arguments regarding the manner in which the previous amendment distinguishes over the Fazel reference.

By way of illustrative example, Applicants would like to refer to the arrangement shown in FIG. 5 of their drawings. There, it can be seen that a given frame 500 comprises four different classes of bits, namely, Class I, Class II, Class III and Class IV. Each of these different classes is a portion of the given frame 500 within the meaning of claim 1. Thus, this arrangement is an example of what is meant by the limitation of claim 1 that recites “wherein each of the portions of the stream of information bits comprises a corresponding one of the different classes of bits.” More importantly, claim 1 as amended recites “each class of bits comprising a plurality of contiguous bits of the frame.” In the FIG. 5 arrangement, this limitation is met by the fact that the four different classes comprise uninterrupted sequential portions of the frame 500.

In contrast to the FIG. 5 example of the claimed arrangement, FIG. 3 of Fazel does not separate a stream into portions, the portions comprising respective classes, such that each class of bits comprises a plurality of contiguous bits of the frame. Instead, what Fazel does is apply the stream 34 to a serial-to-parallel converter 30. Typically, a serial-to-parallel converter operates on blocks of input bits of a given frame, and for a particular block supplies the bits of the block to respective ones of the converter outputs. For example, an eight-bit serial-to-parallel converter with eight outputs will typically operate on blocks of eight contiguous input bits of a given frame, one block at a time, with the first bit of the first block being supplied to the first output, the second bit of the first block to the second output, and so on. For the next block of the given frame, the process repeats, with the first bit of that block being supplied to the first output, the second bit to the second output, and so on.

As a result of this typical serial-to-parallel conversion process, none of the various outputs of the converter 30 in FIG. 3 of Fazel will comprise a plurality of contiguous bits of the given frame of stream 34. To the contrary, the m outputs of the m -bit serial-to-parallel converter 30 will receive

respective ones of the m bits of each m -bit block of the given input frame, and no contiguous bits of the input frame. By way of illustration, output 1 of the converter 30 will receive bit 1, bit $m + 1$, bit $2m + 1$, and so on, none of which are contiguous bits of any frame of stream 34.

Thus, the conventional serial-to-parallel conversion process used in FIG. 3 of Fazel results in an arrangement in which the particular portions at the output of converter 30 do not contain contiguous bits of any frame of the input stream 34. The serial-to-parallel conversion process essentially “chops up” each of the m -bit input blocks of the serial input stream so that the bits of each block appear at respective ones of the m outputs, with the result that no particular converter output comprises contiguous bits of the original input frame. This is believed to constitute a direct teaching away from claim 1 as amended in the previous response.

For similar reasons, independent claims 17 and 23-25 are believed to be patentable over Fazel and the other art of record. Fazel simply fails to teach or suggest that any particular one of the m outputs of the serial-to-parallel converter 30 comprises a plurality of contiguous bits of a frame of the input data stream 34. The Herzberg, Klayman, Cloonan and Chouly references fail to supplement the fundamental deficiencies of Fazel in this regard.

Accordingly, the §103(a) rejections are respectfully traversed.

In view of the foregoing, claims 1-15 and 17-25 as amended are believed to be in condition for allowance. Applicants respectfully request the withdrawal of the claim rejections.

Respectfully submitted,



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